

AMENDMENTS TO THE CLAIMS**Listing of Claims**

- 1 1. (original) An objective having a first field plane, an intermediate image
2 plane, and a second field plane, the objective comprising
3 a first partial objective having a first, convex mirror with a first central
4 mirror aperture and a second, concave mirror with a second central mirror aperture;
5 and
6 a second partial objective having a third, concave mirror with a third central
7 mirror aperture and a fourth, concave mirror with a fourth central mirror aperture;
8 wherein the first field plane and the intermediate image plane are
9 conjugate planes relative to the first partial objective, and the intermediate image
10 plane and the second field plane are conjugate planes relative to the second partial
11 objective,
12 wherein the first mirror has a first axial distance from the second mirror,
13 the second mirror has a second axial distance from the intermediate image, and said
14 first and second axial distances have a ratio between 0.95 and 1.05 relative to each
15 other; wherein the third mirror has a third axial distance Z_{M3-IM} from the second field
16 plane, and said third axial distance conforms to the relationship
17
$$0.03 \cdot Du_{M3} + 5.0 \text{ mm} < Z_{M3-IM} < \frac{0.25 \cdot Du_{M3}}{\tan(\arcsin(NA))},$$

18 NA representing a numerical aperture NA in the second field plane, and Du_{M3}

2 lithographic projection apparatus of claim 22, wherein the method comprises:

3 – illuminating the mask by means of the illumination system with a ray pencil,

4 – modulating the ray pencil by means of the mask, and

5 – projecting the modulated ray pencil onto the photosensitive substrate by means

6 of the objective.

1 24. (original) A lithographic projection apparatus comprising an
2 illumination system and the objective of claim 21, wherein the object is a controllable
3 array of micromirrors and wherein a photosensitive substrate is arranged in the
4 second field plane to receive said reduced image.

1 25. (currently amended) A method of exposing photosensitive substrates
2 in the lithographic projection apparatus of claim 24, wherein the method comprises:
3 – illuminating the controllable micromirror array by means of the illumination
4 system,
5 – reflecting ray pencils from the micromirrors,
6 – by means of a control unit, driving the micromirrors in accordance with a
7 prescribed pattern ~~in such a way~~ having the effect that only a part of the reflected
8 ray pencils will fall on the photosensitive substrate through the objective, and
9 – projecting the reflected ray pencils onto the photosensitive substrate by means of
10 the objective.

1 42. (original) The objective of claim 37, wherein the first mirror is a
2 convex mirror, the second mirror is a concave mirror, the third mirror is a concave
3 mirror, the fourth mirror is a concave mirror, the fifth mirror is a concave mirror and
4 the sixth mirror is a concave mirror.

1 43. (original) The objective of claim 37, wherein the first mirror is a
2 convex mirror, the second mirror is a concave mirror, the third mirror is a concave
3 mirror, the fourth mirror is a concave mirror, the fifth mirror is a convex mirror and the
4 sixth mirror is a concave mirror.

1 44. (new) An objective having a first field plane, a first intermediate image
2 plane, a second intermediate image plane, and a second field plane, the objective
3 comprising
4 a first partial objective having a first mirror with a first central mirror
5 aperture and a second mirror with a second central mirror aperture;
6 a second partial objective having a third mirror with a third central mirror
7 aperture and a fourth mirror with a fourth central mirror aperture; and
8 a third partial objective having a fifth mirror with a fifth central mirror
9 aperture and a sixth mirror with a sixth central mirror aperture
10 wherein the first field plane and the first intermediate image plane are
11 conjugate planes relative to the first partial objective;

12 wherein the first intermediate image plane and the second intermediate
13 image plane are conjugate planes relative to the second partial objective;
14 wherein the second intermediate image plane and the second field plane
15 are conjugate planes relative to the third partial objective, and
16 wherein the objective has a first imaging ratio greater than 1:1 between the
17 first field plane and the first intermediate image, and a second imaging ratio greater
18 than 1:1 between the first intermediate image and the second field plane.

1 45. (new) The objective of claim 44, wherein the objective has a first
2 imaging ratio greater than 3:1 between the first field plane and the first intermediate
image.

1 46. (new) The objective of claim 44, wherein the objective has an overall
2 imaging ratio greater than 4:1 between the first field plane and the second field plane.

1 47. (new) An objective having a first field plane, a first intermediate image
2 plane, a second intermediate image plane, and a second field plane, the objective
3 comprising

4 a first partial objective having a first mirror with a first central mirror
5 aperture and a second mirror with a second central mirror aperture;

6 a second partial objective having a third mirror with a third central mirror
7 aperture and a fourth mirror with a fourth central mirror aperture; and

8 a third partial objective having a fifth mirror with a fifth central mirror

9 aperture and a sixth mirror with a sixth central mirror aperture
10 wherein the first field plane and the first intermediate image plane are
11 conjugate planes relative to the first partial objective;
12 wherein the first intermediate image plane and the second intermediate
13 image plane are conjugate planes relative to the second partial objective;
14 wherein the second intermediate image plane and the second field plane
15 are conjugate planes relative to the third partial objective, and
16 wherein the objective has an overall imaging ratio greater than 4:1
17 between the first field plane and the second field plane.